

horizon display. Owner's manual

Integrated Infared Touch Display





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Software Requirements

	Minimum	Preferred
Processor	Dual Core 2.5G or better	Quad Core 2.5G or better
Memory	2G or more	4G or more
Graphic Card		DX 9.0 standalone VRAM: 512MB or better
Operating System		Win 7

Set Up Instructions

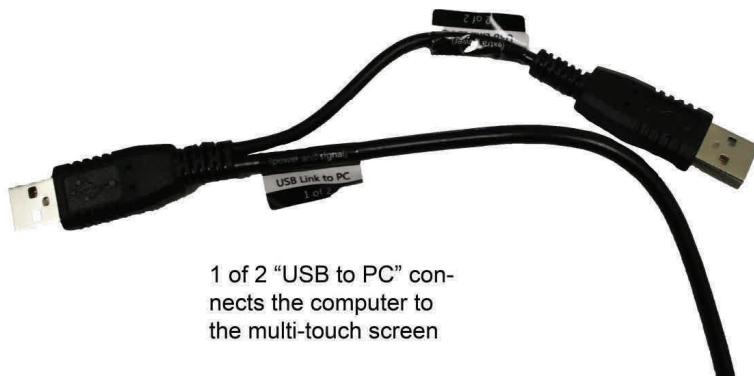
Connecting the Cables



USB: Connect the computer to the multi-touch screen, and everything on your operating system will work with hand gestures.

Note: The USB cable is labeled "1 of 2" and "2 of 2". They must be plugged in correctly for your multi-touch screen to function. A prompt should pop-up, saying "new hardware found."

- "1 of 2" connects the computer to the multi-touch screen. It must be plugged into the touch overlay.
- "2 of 2" connects to the AC power adapter. It must be plugged into the 2" port.

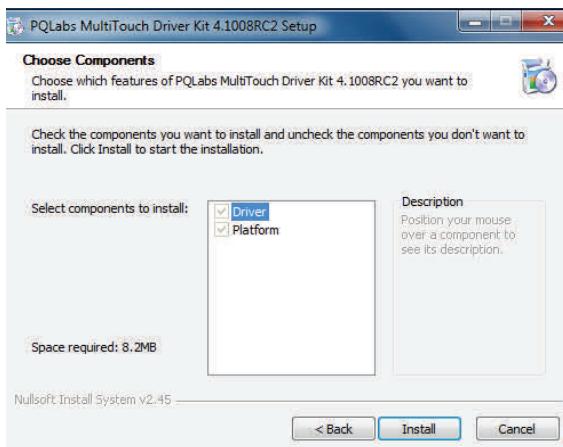




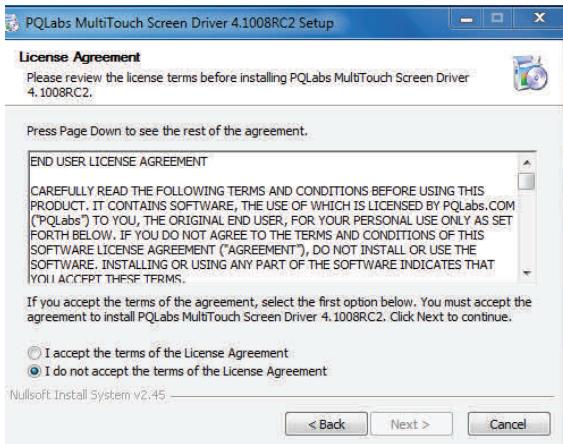
Installing PQ Labs Multi-Touch Driver Kit

Connecting the Cables

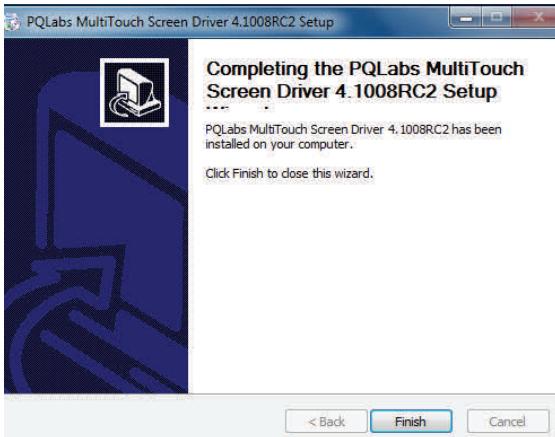
Driver: Installing the driver will allow the computer and display monitor to recognize the multi-touch overlay. Follow the simple instructions below to complete your installation.



- It's very important to check both components to be installed: Driver and Platform.
- Total space required is 8.2MB



- Read over the licensing agreement carefully and accept the terms of agreement to continue.



- In a few minutes, installation of the Driver and Platform should be complete. You'll need to reboot your computer for the effects to take place.



Operating the Multi-Touch Screen

Mouse Actions

PQ Labs Multi-Touch G3 Overlays provide full mouse functionality—click, drag, double-click and right-click

- Single click is performed by tapping your finger once on the screen
- Double click is performed by tapping your finger twice on the screen quickly
- Drag is performed by touching and moving your finger across the screen without lifting off
- Right click is performed by touching and holding your finger in one position for a short time.



The sensitivity of the cursor, double-click, as well as size of the touch input can be adjusted on the PQ Labs Multi-Touch Platform.

Calibration and Screen Doctor can also be located on the PQ Labs Multi-Touch Platform for brisk resolution to most response problems



Operating Notes

The touch screen does not require pressure to sense a touch

PQ Labs overlay offers true multi-touch, with no ghost points or limitations. Operate at any angle, with up to 32 touch points at the same time.

When moving objects with your index finger, make sure your other fingers are not interacting with the touch screen, as it may confuse the sensors.



Multiple display configuration for single touch screen

When the computer detects more than one display monitors, there are two basic premises for configuring the platform to support a certain single touch screen to support multi-display:

- All the display monitors should be in the same display resolution.
- The first display monitor should be primary or main display. The base point of first display monitor should be (0,0), as pictured below:



- We'll use "touch screen **'ira100624007'**" for this example, and we'll configure it to be a "1 row, 2 column" multi-display screen like the picture above. (For a 2 row, 1 column array the row/column numbers should be filled in accordingly).
- Exit the Multi Touch Platform.

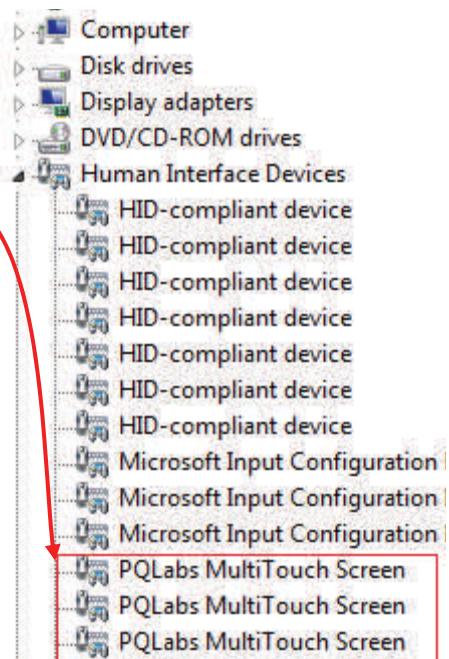
"**'ira100624007'**" is a simple screen and, most likely, only one digitizer is installed in the computer so we might need to install another digitizer. Right-click on "My Computer" and select "Properties", then click on "Device Manager".

- Verify the number of "PQLabs MultiTouch Screen" items open in the "Human interface devices" (pictured below).

If the number of "PQLabs MultiTouch Screen" items doesn't match the number of monitors you plan to use, then find "PQInstallTouch.exe" in the driver set-up directory (usually located in "C:\ProgramFiles\PQLabs\MultiTouchDriver"), and run it once. Then verify, using the "Device Manager", that the monitor quantity matches the number of "PQLabs MultiTouch Screen" instances that are active.

- Go to the setup directory of MultiTouchPlatform and find the "mtsvrset.xml", and then open to modify it.
- Find the element <multi_display_screen_manager> in the "mtsvrset.xml". Add the serial number in the <multi_display_screen> elements:

```
<multi_display_screen serial_number="ira100624007"  
configure_name="ira100624007"></multi_display_screen>
```





(Continued)

- Find the element <mds_configure>. Edit the text as follows:

```
<mds_configure name="ira100624007" total_row="1" total_col="2"
display_monitor_mode="respective">
    <sub_display_screen row_in_matrix="0" col_in_matrix="0">
        <calibration point_0_x="" point_0_y=""
                      point_1_x="" point_1_y=""
                      point_2_x="" point_2_y=""
                      point_3_x="" point_3_y="" />
    </sub_display_screen>
    <sub_display_screen row_in_matrix="0" col_in_matrix="1">
        <calibration point_0_x="" point_0_y=""
                      point_1_x="" point_1_y=""
                      point_2_x="" point_2_y=""
                      point_3_x="" point_3_y="" />
    </sub_display_screen>
</mds_configure>
```

Since there are two monitors in this scenario, we needed to create two <sub_display_screen> in the <mds_configure>.

Save the "mtsvrset.xml" and start the MultiTouchPlatform, click the "Restore" button in the "Calibration" group. Then you can see the value of calibration points in last step will be filled in like this:

```
<mds_configure name="ira100624007" total_row="1" total_col="2"
display_monitor_mode="respective">
    <sub_display_screen row_in_matrix="0" col_in_matrix="0">
        <calibration point_0_x="512" point_0_y="1024" point_1_x="1536" point_1_y="1024"
                      point_2_x="512" point_2_y="3072" point_3_x="1536" point_3_y="3072" />
    </sub_display_screen>
    <sub_display_screen row_in_matrix="0" col_in_matrix="1">
        <calibration point_0_x="2560" point_0_y="1024" point_1_x="3584" point_1_y="1024"
                      point_2_x="2560" point_2_y="3072" point_3_x="3584" point_3_y="3072" />
    </sub_display_screen>
```



Description of Element Inputs

<multi_display_screen>

```
<multi_display_screen serial_number="" configure_name=""></multi_display_screen>
```

- **serial_number**

It is the serial number of single touch screen which supports multi_display_screen, you need to specify the serial number here.

- **configure_name**

The name of “mds_configure”, which specifies how to organize the multi_display_screen. One serial_number can only map with one <mds_configure>

<mds_configure>

```
<mds_configure name="" total_row="" total_col="" display_monitor_mode="">
    <sub_display_screen row_in_matrix="" col_in_matrix="">
        <calibration point_0_x="" point_0_y=""
                      point_1_x="" point_1_y=""
                      point_2_x="" point_2_y=""
                      point_3_x="" point_3_y="" />
    </sub_display_screen>
</mds_configure>
```

- **name**

Indicates the configure name. Generally it's the serial number of the touch screen or a name defined by the user. The name is the identity of each unique <mds_configure> so it should be named differently than any additional <mds_configure> that you create.

- **total_row/total_col**

indicates the display matrix, for example, ‘total_row=”1” total_col=”2”’ indicates two monitors side-by-side.

- **display_monitor_mode**

The value can be one of {"blent", "respective"}, while the “blent” is default value.

blent: all the physical display monitor are connected to PC by a "MultiView Blender"(hardware),and the operating system can only detect one display monitor.

respective: the operating system will detect every monitor individually.

- **sub_display_screen**

Every <sub_display_screen> belongs to one touch digitizer. Each digitizer will be bound with one display monitor. The position of sub_display_screen in the monitor matrix is specified by “row_in_matrix” and “col_in_matrix”(in range of [0,..., total_col]). The “calibration” in this element stores the calibration points position of the sub_display_screen. There are always four points, and the origin (0,0) is located at the top left corner.

Troubleshooting

- This section provides some diagnostic tests and solutions that you can apply in the event there is a problem with the touch monitor. If the problem persists or you require additional support, contact Horizon Display support department at **(888) 737-4674** or by emailing support@horizondisplay.com.

Touch monitor does not respond to touches

- Make sure the USB cable is connected to the monitor and the computer.
- If the problem still persists, try plugging the monitor into a different USB port on the computer.

Touch produces erratic responses on screen

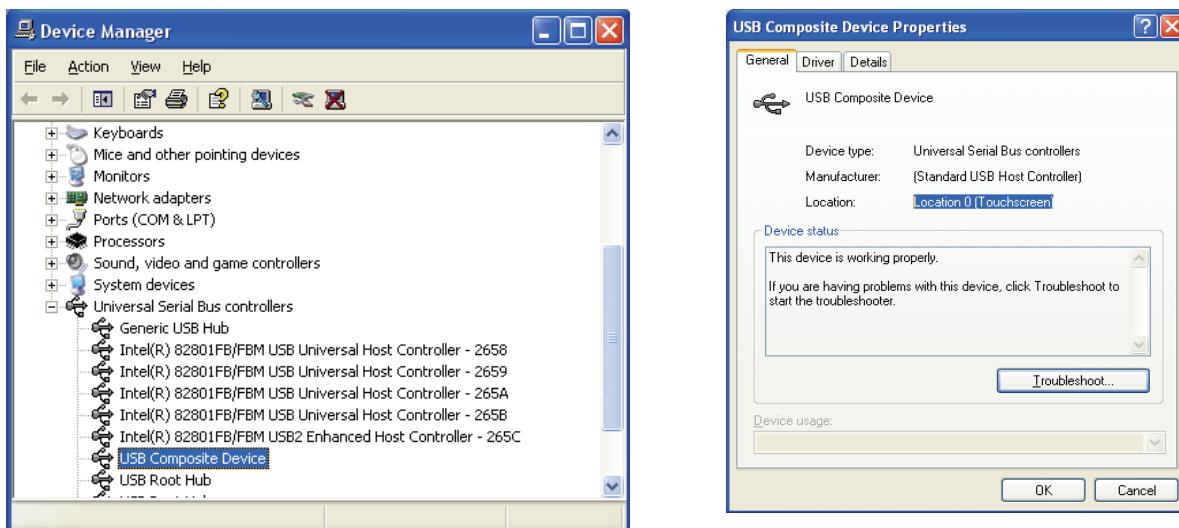
- This can occur if the touch monitor has not been calibrated correctly. To fix the problem, recalibrate the touch monitor.

Unable to calibrate the touch monitor

- If you have a problem calibrating your touch monitor contact Horizon Display for support.

"Uninstalling and reinstalling the USB device

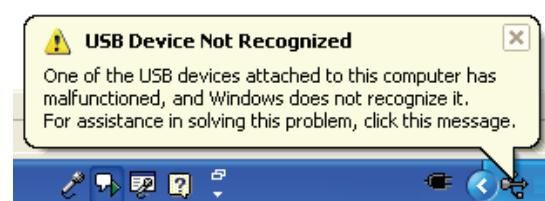
- From the Start menu computer select: Settings/Control Panel/System (in traditional view) and then click on Hardware tab. You should now enter the Device Manager application.
- Right click on [USB Composite Device] and then click on [Properties].



- Once on the Properties screen, verify that the location refers to the touch monitor.
- Close the Properties screen.

"USB not recognized" message appears on screen

- This message can appear if the USB port on the computer does not recognize the monitor. This is often resolved by utilizing a different USB port on the computer.





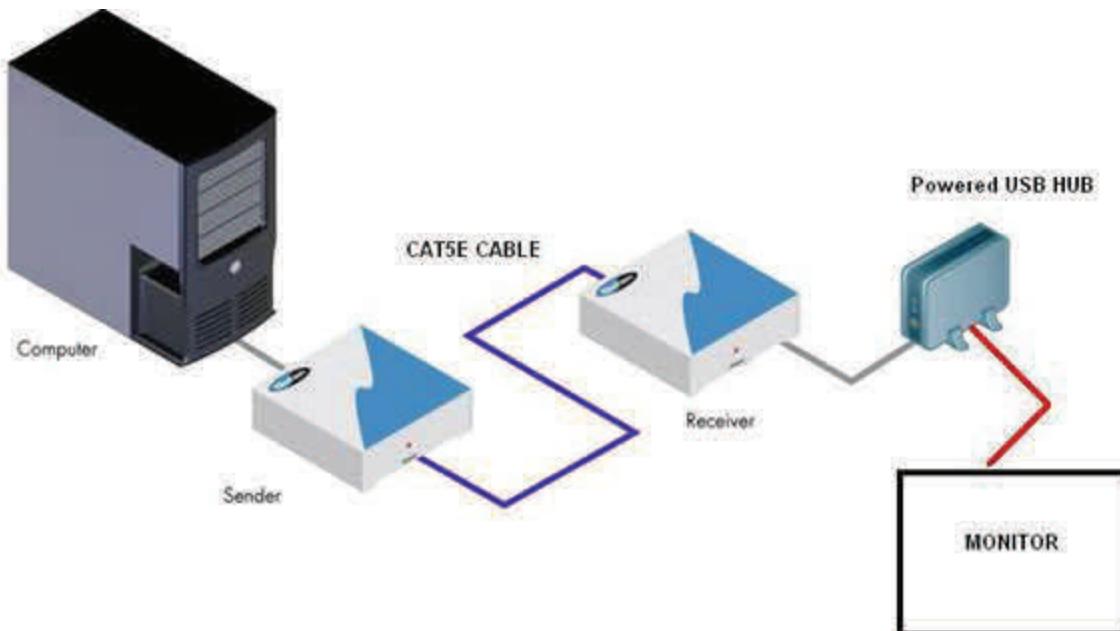
Troubleshooting Continued...

USB Extension and Limits

- The touch screens use a USB version 1.1, which supports cable lengths up to **15 feet**. Any length beyond this may cause the touch screen to not function properly or fail completely.
- Horizon Display recommends a powered USB extender which boosts the power signal as well as data. We have tested the [Gefen USB200](#) (powered extender) and we were successful in extending the touch screen using CAT5E up to 300 ft. A powered USB hub (any generic will work) on the Receiving Unit was required for the high powered device to work as well. See diagram below for set-up.
- If powered devices are not used then a “*power surge on hub port*” will appear.



NOTE: Horizon Display is not associated with or a reseller for Gefen products.





Cleaning Instructions

- Recommended cleaning solution consists of a 70% or higher isopropyl alcohol in conjunction with a fine micro-fiber cloth. **DO NOT** spray/pour alcohol directly to screen; apply to cloth first.
- Wipe lightly in one direction. Do not buff aggressively or wipe in a circular motion.

Warranty Information

Damaged Goods

In the event of damage to this Product or packaging you should immediately advise the shipper and the reseller who sold you the product. Retain all original packaging. Future shipment of this product in incorrect packaging may void your warranty.

Limited Warranty

1) Horizon Display a division of Horizon Technology, LLC (hereinafter 'Horizon Display'), warrants its products to be free from defects in material and workmanship during the warranty period and subject to the conditions set forth below. Horizon Display warrants its products as to form, fit and function, not specific application and to meet the performance and testing parameters defined in the product's associated customer quotation, purchase order and/or contract between Horizon Display and customer. If a product proves to be defective in material or workmanship during the warranty period, Horizon Display, at its sole discretion will repair or replace the product with a similar product provided that a Horizon Display return materials authorization number (RMA) was issued prior to the return of the product. Replacement parts and or units may include remanufactured or product refurbished to manufacturers specifications. The replacement unit will be covered by the balance of the time remaining on the original limited warranty. Warranty period can be found in your original invoice.

2) Horizon Display provides a limited warranty on all custom integrated solutions including; integrated computer products, integrated storage solutions and integrated display solutions as well as all distributed products including storage and display products. Warranty terms are for repair at Horizon Display's Integration facility in Lake Forest, CA. Freight expense from the customer to the repair depot will be the liability of the customer. The freight expense to return the product back to the customer will be the liability of Horizon Display. The warranty period begins upon the ship date reflected on Horizon Display's invoice. The balance of the original warranty as detailed in section 1 will cover repairs and or replacements made under the warranty.

3) This warranty is limited to the original purchaser of the product and is not transferable As detailed in section 1, repairs and replacements will be covered by the balance of the time remaining on the original limited warranty. The original Horizon Display invoice must accompany all warranty requests. Horizon Display shall be under no liability at all under this warranty if the total price for the product has not been paid.

4) Warranty period can be found in your original invoice.

5.) Definition of DOA (dead on arrival) - Horizon restricts the DOA period to not exceed 10 days from receipt by customer. This grace period allows ample time to test product and verify it has been delivered in the condition quoted. If the product fails at any time within this period, Horizon Display is liable for freight charges to return product and for shipping the replacement/repaired product. If at any time the product is installed, mounted, or altered, the DOA period ends.



How to get Service?

Please contact Horizon Display at (888)737-4674 or email (support@horizontdisplay.com), Monday-Friday 9-5PM (PST) for support.

While on the phone with the technician, every attempt will be made to resolve your issue. If the issue cannot be resolved, the Horizon Display technician will provide additional instructions as to how to get the unit back to original operation. This may include shipping the unit back to Horizon Display's Factory Service Center in Lake Forest, CA. If a technician must be dispatched and the unit fails because of issues related to software, operating system, and/or operator error related the client may be billed for time and travel expenses. If a product is being returned to Horizon Display an RMA and instructions will be provided.

Regulatory Compliance Information

Federal Communication Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to

For Customer Support please contact Horizon Display at

(888) 737-4674

support@horizontdisplay.com

Or visit us at

www.horizontdisplay.com/support